

WHAT IS CLAIMED IS:

1. A method for facilitating system management in a data processing system,
comprising:
tracking status information of a system component of a platform-side
operating system in a data processing system, wherein said tracking is
5 facilitated by a service processor of the data processing system; and
configuring the platform-side operating system dependent at least partially
upon said status information, wherein said configuring is facilitated at
least partially by platform firmware of data processing system.
2. The method of claim 1 wherein said tracking includes:
10 probing a device driver associated with the system component; and
receiving said status information from the device driver.
3. The method of claim 1, further comprising:
enabling access of at least a portion of said status information by said platform
firmware for enabling said configuring to be facilitated, wherein said
15 enabling access is facilitated by the service processor.
4. The method of claim 3 wherein:
said platform firmware includes boot-time firmware; and
said enabling access includes transmitting at least a portion of said status
information at boot-time by the service processor for reception by said
20 boot-time firmware.
5. The method of claim 4 wherein said transmitting includes transmitting over a
network connection.
6. The method of claim 3 wherein:

said platform firmware includes run-time firmware; and
said enabling access includes maintaining at least a portion of said status
information in a persistent data structure that is accessible by said run-
time firmware thereby enabling said run-time firmware to access at
least a portion of said status information.

7. The method of claim 1 wherein said tracking includes:

querying a device driver associated with the system component after an
adverse operating system condition for determining if the system
component contributed to the adverse operating system action and
implementing a specified corrective action in response to a determination that
the system component contributed to the adverse operating system
condition.

8. The method of claim 1 wherein said tracking includes:

determining that the system component is a redundant system component that
is idle during a present operating system instantiation;
monitoring status of the system component during the present operating
system instantiation; and
implementing a specified corrective action in response to a determination that
the system component is at least temporarily unable to provide
intended redundancy functionality.

9. The method of claim 1, further comprising:

receiving user-specified configuration information via a service processor
based user interface; and
transmitting at least a portion of said user-specified configuration information
by the service processor for reception by said platform firmware;
wherein said configuring is further dependent at least partially upon said user-
specified configuration information.

10. A method for facilitating system management in a data processing system,
comprising:
- 5 tracking status information of a system component of a platform-side
operating system in a data processing system; and
enabling access of at least a portion of said status information by platform
firmware of the data processing system for enabling the platform-side
operating system to be configured dependent at least partially upon
said status information;
- 10 wherein said tracking and said enabling access are facilitated by a service
processor of the data processing system.
11. The method of claim 10 wherein said tracking includes:
probing a device driver associated with the system component; and
receiving said status information from the device driver.
- 15 12. The method of claim 10 wherein:
said platform firmware includes boot-time firmware; and
said enabling access includes transmitting at least a portion of said status
information at boot-time by the service processor for reception by said
boot-time firmware.
- 20 13. The method of claim 12 wherein said transmitting includes transmitting over a
network connection.
14. The method of claim 10 wherein:
said platform firmware includes run-time firmware; and
said enabling access includes maintaining at least a portion of said status
25 information in a persistent data structure that is accessible by said run-
time firmware thereby enabling said run-time firmware to access at
least a portion of said status information.

15. The method of claim 10 wherein said tracking includes:

querying a device driver associated with the system component after an
adverse operating system condition for determining if the system
component contributed to the adverse operating system action and
5 implementing a specified corrective action in response to a determination that
the system component contributed to the adverse operating system
condition.

16. The method of claim 10 wherein said tracking includes:

determining that the system component is a redundant system component that
10 is idle during a present operating system instantiation;
monitoring status of the system component during the present operating
system instantiation; and
implementing a specified corrective action in response to a determination that
the system component is at least temporarily unable to provide
15 intended redundancy functionality.

17. The method of claim 10, further comprising:

receiving user-specified configuration information via a service processor
based user interface; and
transmitting at least a portion of said user-specified configuration information
20 by the service processor for reception by said platform firmware;
wherein said configuring is further dependent at least partially upon said user-
specified configuration information.

18. A method for facilitating system management in a data processing system, comprising:
- 5 accessing status information of a system component of a platform-side operating system in a data processing system; and
- configuring the platform-side operating system dependent at least partially upon said status information;
- wherein said accessing and at least a portion of said configuring are facilitated by platform firmware of data processing system.
- 10 19. The method of claim 18 wherein said accessing is facilitated in response to said status information being transmitted by a service processor of the data processing system for reception by said platform firmware
20. The method of claim 18 wherein:
- 15 said platform firmware includes boot-time firmware; and
- said accessing includes receiving at least a portion of said status information at boot-time.
21. The method of claim 20 wherein said accessing includes receiving at least a portion of said status information via a network connection.
22. The method of claim 18 wherein:
- 20 said platform firmware includes run-time firmware; and
- said accessing includes accessing at least a portion of said status information in a persistent data structure maintained at least partially by the service processor and accessible by said run-time firmware.
23. The method of claim 18, further comprising:
- 25 receiving user-specified configuration information transmitted by the service processor for reception by the platform firmware, wherein said

configuring is further dependent at least partially upon said user-specified configuration information.

24. The method of claim 18, wherein:

said configuring includes implementing a specified corrective action for a

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particular redundant system component in response to said status

information indicating that the particular redundant system component

is unavailable to provide intended redundancy functionality.

25. The method of claim 24 wherein the specified corrective action includes at least one of issuing notification of the unavailability of the particular redundant system

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component and issuing notification to repair or replace that component for maintaining fail-over capability.

26. A computer readable medium, comprising:
instructions processable by at least one of a service processor in a data processing
system and platform firmware of a platform-side operating system in the data
5 processing system; and
an apparatus from which said instructions are accessible by at least one of the
service processor and said platform firmware;
wherein said instructions being adapted for enabling at least one of the service
processor and said platform firmware to facilitate:
10 tracking status information of a system component of the
platform-side operating system, wherein said tracking is
facilitated by the service processor; and
configuring the platform-side operating system dependent at
least partially upon said status information, wherein said
15 configuring is facilitated at least partially by said
platform firmware.
27. The computer readable medium of claim 26 wherein said tracking includes:
probing a device driver associated with the system component; and
receiving said status information from the device driver.
28. The computer readable medium of claim 26 wherein said instructions are further
20 adapted for enabling at least one of the service processor and said platform firmware
to facilitate:
enabling access of at least a portion of said status information by said platform
firmware for enabling said configuring to be facilitated, wherein said
25 enabling access is facilitated by the service processor.
29. The computer readable medium of claim 28 wherein:
said platform firmware includes boot-time firmware; and

said enabling access includes transmitting at least a portion of said status information at boot-time by the service processor for reception by said boot-time firmware.

- 5 30. The computer readable medium of claim 29 wherein said transmitting includes transmitting over a network connection.

- 10 31. The computer readable medium of claim 28 wherein:
 said platform firmware includes run-time firmware; and
 said enabling access includes maintaining at least a portion of said status information in a persistent data structure that is accessible by said run-time firmware thereby enabling said run-time firmware to access at least a portion of said status information.

- 15 32. The computer readable medium of claim 26 wherein said tracking includes:
 querying a device driver associated with the system component after an adverse operating system condition for determining if the system component contributed to the adverse operating system action and implementing a specified corrective action in response to a determination that the system component contributed to the adverse operating system condition.

- 20 33. The computer readable medium of claim 26 wherein said tracking includes:
 determining that the system component is a redundant system component that is idle during a present operating system instantiation;
 monitoring status of the system component during the present operating system instantiation; and
 implementing a specified corrective action in response to a determination that
25 the system component is at least temporarily unable to provide intended redundancy functionality.

34. The computer readable medium of claim 26 wherein said instructions are further adapted for enabling at least one of the service processor and said platform firmware to facilitate:

receiving user-specified configuration information via a service processor

based user interface; and

transmitting at least a portion of said user-specified configuration information

by the service processor for reception by said platform firmware;

wherein said configuring is further dependent at least partially upon said user-specified configuration information.

35. A computer readable medium, comprising:
instructions processable by at least one of a service processor in a data processing
system and platform firmware of a platform-side operating system in the data
processing system; and
5 an apparatus from which said instructions are accessible by at least one of the
service processor and said platform firmware;
wherein said instructions being adapted for enabling at least one of the service
processor and said platform firmware to facilitate:
10 tracking status information of a system component of the
platform-side operating system; and
enabling access of at least a portion of said status information
by said platform firmware for enabling the platform-
side operating system to be configured dependent at
15 least partially upon said status information;
wherein said tracking and said enabling access are facilitated
by the service processor of the data processing system.
36. The computer readable medium of claim 35 wherein said tracking includes:
probing a device driver associated with the system component; and
20 receiving said status information from the device driver.
37. The computer readable medium of claim 35 wherein:
said platform firmware includes boot-time firmware; and
said enabling access includes transmitting at least a portion of said status
information at boot-time by the service processor for reception by said
25 boot-time firmware.
38. The computer readable medium of claim 37 wherein said transmitting includes
transmitting over a network connection.

39. The computer readable medium of claim 35 wherein:

said platform firmware includes run-time firmware; and

said enabling access includes maintaining at least a portion of said status
information in a persistent data structure that is accessible by said run-
time firmware thereby enabling said run-time firmware to access at
least a portion of said status information.

40. The computer readable medium of claim 35 wherein said tracking includes:

querying a device driver associated with the system component after an
adverse operating system condition for determining if the system
component contributed to the adverse operating system action and
implementing a specified corrective action in response to a determination that
the system component contributed to the adverse operating system
condition.

41. The computer readable medium of claim 35 wherein said tracking includes:

determining that the system component is a redundant system component that
is idle during a present operating system instantiation;
monitoring status of the system component during the present operating
system instantiation; and
implementing a specified corrective action in response to a determination that
the system component is at least temporarily unable to provide
intended redundancy functionality.

42. The computer readable medium of claim 35 wherein said instructions are further
adapted for enabling at least one of the service processor and said platform firmware
to facilitate:

receiving user-specified configuration information via a service processor
based user interface; and

transmitting at least a portion of said user-specified configuration information
by the service processor for reception by said platform firmware;
wherein said configuring is further dependent at least partially upon said user-
specified configuration information.

43. A computer readable medium, comprising:
instructions processable by at least one of a service processor in a data processing
system and platform firmware of a platform-side operating system in the data
5 processing system; and
an apparatus from which said instructions are accessible by at least one of the
service processor and said platform firmware;
wherein said instructions being adapted for enabling at least one of the service
processor and said platform firmware to facilitate:
10 accessing status information of a system component of the
platform-side operating system; and
configuring the platform-side operating system dependent at
least partially upon said status information;
wherein said accessing and at least a portion of said
15 configuring are facilitated by platform firmware of data
processing system.
44. The computer readable medium of claim 43 wherein said accessing is facilitated in
response to said status information being transmitted by a service processor of the
data processing system for reception by said platform firmware
- 20 45. The computer readable medium of claim 43 wherein:
said platform firmware includes boot-time firmware; and
said accessing includes receiving at least a portion of said status information at
boot-time.
- 25 46. The computer readable medium of claim 45 wherein said accessing includes
receiving at least a portion of said status information via a network connection.
47. The computer readable medium of claim 43 wherein:
said platform firmware includes run-time firmware; and

said accessing includes accessing at least a portion of said status information
in a persistent data structure maintained at least partially by the service
processor and accessible by said run-time firmware.

5 48. The computer readable medium of claim 43 wherein said instructions are further
adapted for enabling at least one of the service processor and said platform firmware
to facilitate:

receiving user-specified configuration information transmitted by the service
processor for reception by the platform firmware, wherein said
configuring is further dependent at least partially upon said user-
10 specified configuration information.

49. The method of claim 43, wherein:

said configuring includes implementing a specified corrective action for a
particular redundant system component in response to said status
information indicating that the particular redundant system component
15 is unavailable to provide intended redundancy functionality.

50. The method of claim 49 wherein the specified corrective action includes at least one
of issuing notification of the unavailability of the particular redundant system
component and issuing notification to repair or replace that component for
maintaining fail-over capability.

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